

PART II

GUIDANCE AND PROCEDURES

CHAPTER 3: REQUIREMENTS DETERMINATION

3.1 GENERAL

Requirements determination refers to the process of identifying and specifying the material needs of Fleet customers. The process requires Inventory Managers (IMs) of NAVSEA material to translate anticipated user demands into appropriate inventory levels. Requirements may be fully defined when the following information is available for a specified item: National Stock Numbers (NSN) or nomenclature, quantity, end user, required delivery date/site, and basis for the requirement. Requirements as discussed herein will fall in one of two categories:

a. Program. Requirements for material to sustain authorized and well defined programs, such as new construction, conversion, alteration or outfitting of ships and other specified activities. Other major Program Requirements include the Military Assistance Program (MAP), the Foreign Military Sales (FMS) program, loans, or any other planned requirements for NAVSEA COG material.

b. Maintenance. Random requirements for material to support or replace operational equipment. This category may be further sub-divided as follows:

(1) Demand Based. Requirements for items for which random demands occur over a sustained period, and may be subsequently used to predict future demands.

(2) Insurance. Requirements for items for which demand has been infrequent or lacking, but prudence dictates stocking of nominal quantities due to item essentialities or procurement/repair lead times.

Actual requirements computation differs for each of the above material categories. For program requirements, numeric material availability objectives and delivery schedules are usually defined in some form of program planning document. As a result, the task of an IM charged with program support consists primarily of timing material acquisition/delivery to support established schedules.

Determination of maintenance requirements, on the other hand, involves not only temporal considerations but also specific inventory level computations. In the case of demand-based items, IMs need to analyze demand histories and develop mathematical projections of expected future needs. For insurance items, inherent item characteristics determined by engineering analyses may be used to predict failure rates. This calculation

can then be combined with related external factors (i.e., historical data, item essentiality) to determine appropriate stock levels.

After careful consideration, all IMs must ultimately compare requisite stock levels with on-hand and due-in assets. This will determine whether sufficient stock is available to satisfy anticipated demands. Moreover, the IM must take necessary supply adjustment actions to reconcile any inventory imbalances that are discovered. IMs of NAVSEA material must be able to define projected requirements sufficiently in advance to provide budgeting and acquisition (as required) sufficient lead-time to meet anticipated demands for the fiscal year under consideration.

3.2 PROGRAM REQUIREMENTS

The nature of program requirements--that is, the extensive analysis and planning involved in new construction, conversion, alteration, and similar efforts--results in material needs which are usually known well in advance of required delivery dates. IMs should therefore be cognizant of program status and be provided access to available planning documentation (i.e., Ship Project Directives (SPDs) for new construction, Ship Alteration (SHIPALT) Proposals and Records for alterations) to ensure adequate response time to meet material delivery time frames. In all cases IMs should establish and maintain dialogue with system/equipment acquisition and engineering elements to ensure timely input to (as appropriate) and support for designated program needs.

3.2.1 Pre-Assigned Document Numbers

IMs for NAVSEA material may use pre-assigned document numbers in order to record, pre-validate, and track program demands. These numbers are in standard Military Standard Requisitioning and Issue Procedures (MILSTRIP) format and consist of anticipated requestor (ship/installing activity Unit Identification Code (UIC)), julian date of assignment by IM, and internal NAVSEA Serial Number (See Chapter 1, Figure 7). IMs may assign and transmit these numbers for selected programs once requirements are determined. User activities can then requisition material using these numbers and, as a result, IM processing, review, and approval time frames will be minimized. If utilized, IMs should maintain pre-assigned numbers in a central record of all MILSTRIP documents originated in order to track subsequent demands.

3.2.2 Demand Projection

a. SPDs. Major shipbuilding and conversion programs are supported by extensive program planning and execution directives. A primary method of describing overall direction and authority for such programs is via SPDs which document negotiated agreements between Program or Project Managers and other participating authorities and delineate clearly defined tasks and accountability requirements. Upon assignment of a proposed ship project, one of the responsibilities of the individual with overall program cognizance is to negotiate with participating authorities to define lists of systems/equipments/components necessary for project completion. This information is then formatted as required and included as part of the SPD.

IMs may not always have direct access to such documentation. However, NAVSEA Program Managers normally have designated internal points of contact to relay necessary data (i.e., serial/stock number, quantity, hull number, required delivery date) to IMs for planning purposes. In addition, coordination with equipment engineers and other program office personnel involved in SPD preparation will support early identification and validation of expected requirements.

b. Fleet Modernization Program (FMP). The FMP consists of a multi-year schedule of improvements planned for Navy ships and craft, drawn from integrated, prioritized lists of military and technical alterations applicable to each ship class (i.e., SHIPALTS). The FMP also addresses non-hull identified program requirements, including Ordnance Alterations (ORDALTS), Machinery Alterations (MACHALTS) and Electronic Field Changes. All FMP functions are supported by the FMP Management Information System (FMPMIS). The data base contains information about SHIPALTS, including ship overhaul schedules, material and design support requirements and related financial data. IMs of NAVSEA material must be conversant with FMPMIS access and data input procedures to ensure effective material management and visibility. The FMP Manual can be accessed by entering URL <http://fmpweb.nctsw.navy.mil/manual/manulind.html> in your web browser's "Location" or "Address" text area.

3.2.2.1 SHIPALT Classifications

SHIPALTS are defined as any change in hull, machinery, equipment, or fittings which involves change in design, material, quantity, location or relationship of the component parts of an assembly. SHIPALTS are classified by title.

(a) Title D SHIPALT – a permanent alteration that does not affect the military characteristics of a ship and may require Centrally Provided Material (CPM) but not Headquarters CPM for accomplishment. Title D alterations are technically approved by NAVSEA and authorized for accomplishment by the Fleet Commander in Chief (FLTCINC).

(b) Title F SHIPALT – a permanent alteration that does not affect the military characteristics of a ship, does not require CPM and is within the capabilities of ship's force to accomplish. Title F alterations are technically approved by NAVSEA and authorized for accomplishment by the FLTCINC.

(c) Title K SHIPALT – a permanent alteration to provide a military characteristic or additional capability not previously held by a ship or which otherwise requires the installation of Headquarters CPM. Title K alterations are approved and authorized by the Chief of Naval Operations (CNO) for military improvements or the Hardware Systems Command (HSC) for non- military improvements. The technical approval for Title K SHIPALTs is provided by NAVSEA.

3.2.2.2 SHIPALT Development

The genesis of a SHIPALT, including its documentation, approval and funding, is a complex procedure involving several activities.

a. The SHIPALT process begins with the development of a modernization idea, which can come from any source and can be a military, technical, or survivability improvement. Most technical improvement recommendations are generated from the Fleet, from within a HSC, or from the Board of Inspection and Survey (INSURV). An idea is described in a Proposed Military, Survivability, or Technical Improvement (PMI, PSI, or PTI) document. Military and Survivability Proposals are submitted to the appropriate CNO Platform Sponsor and Technical Proposals are submitted to the appropriate NAVSEA or Program Executive Office (PEO) Ship Program Manager (SPM) for approval prior to proceeding to the next step. On a case by case basis, PMIs and PSIs may require performance of a Cost and Feasibility Study (CFS) by NAVSEA. PTIs do not ordinarily require a CFS.

b. An approved PMI, PSI, or PTI is forwarded to the appropriate SPM for development of a Justification Cost Form (JCF). The JCF is a document that contains sufficient data to allow the SPM to decide whether or not to proceed with full SHIPALT development. Development of the JCF is either performed by the SPM or tasked to the cognizant Engineering Directorate (ED). It identifies the justification for the SHIPALT, any critical material requirements, an initial installation cost estimate, and the ship classes to which the concept is applicable. If the decision is subsequently made to program and fund the SHIPALT, the JCF is assigned an Advance Alteration Number; is entered into FMPMIS; and a "Planning Yard" is tasked by the SPM to create the Ship Alteration Record (SAR). Material procurement cannot commence until the SHIPALT is programmed and budgeted for a specific hull in a given fiscal year.

c. The SAR is class-specific and more detailed than the JCF. It includes material requirements, refined cost estimates, ship impacts, ship system interfaces, Integrated Logistics Support (ILS) impacts, sketches, and required removals. The Planning Yard that developed it is normally assigned to that ship class and is funded from the FMP Design Services Allocation (DSA). If a Type Commander tasks a Planning Yards to develop SARs for Title D and F SHIPALTs, that Type Commander will fund those SARs. It is especially important that all CPM is identified at this point since over 75% of all such equipment has up to an 18-month procurement lead time. Subsequently, a SHIPALT Advance Planning Letter will be issued by the SPM and, thereafter, the SPM and the Type Commander will jointly issue an Authorization Letter. These letters will be released up to 24 months prior to scheduled installation for a first time SHIPALT. At this time the Planning Yard is tasked by the SPM to develop a third major SHIPALT design document - the SHIPALT Installation Drawings (SIDs).

d. The SIDs, which are ship specific to the first ship scheduled to receive the SHIPALT, contain all drawings and data necessary for the Naval Supervising Activity/Installing Activity to accomplish the SHIPALT. SIDs for all follow-on installations are design refinements of the first-time SIDs and are specific to each following ship's installation. The cost of SIDs can include a ship-check prior to each SID's preparation and a verification ship-check upon its completion. These costs are all paid for from the FMP DSA.

e. Once a SHIPALT is programmed in FMPMIS, IMs of NAVSEA material that will be used in the SHIPALT are responsible for additional processing actions. Specifically, IMs must update the FMPMIS Ship Bill of Materials (SBM or BOM)) record with information regarding material status for each applicable hull. Appendix D provides instructions for FMPMIS SBM queries and updates and defines data elements that IMs must input and/or maintain. In addition to the FMPMIS SBM review discussed above, IMs may use selected FMPMIS Ad Hoc Programs (which reformat SBM data) to define alteration schedules by cognizant IM. Detailed instructions for all FMPMIS operations are provided in current FMPMIS Field Node Training Volumes for Material Managers.

3.2.2.3 ORDALTs

An ORDALT is defined as a change made to naval ordnance equipment or associated computer programs by the addition, deletion, rework, or replacement of parts, assemblies, or equipment by a change in assembly procedures. ORDALT instructions may be developed per MIL-STD-1662 in response to engineering changes to ordnance items in surface or undersea warfare systems if the change applies to one or more units in operational use. ORDALT management functions differ from SHIPALT requirements in that NAVSEA 91 Program Managers or Technical Managers, in conjunction with In-Service Engineering Activities (ISEAs), are responsible for life cycle management of alterations applicable to prime ordnance items under their cognizance. Such responsibilities include the following:

- a. Development of the hardware (including spare parts), computer program revision and documentation required for the ORDALT.
- b. ORDALT proofing.
- c. Approval of the ORDALT instruction.
- d. Monitoring ORDALT kit assembly, shipment, storage, inventory maintenance, and kit issue to an installing activity.
- e. Sponsorship of ORDALT changes and revisions.
- f. Initial determination of priority of ORDALT accomplishment.
- g. Cannibalization and disposition decision for ORDALT kits.

Responsibility for actual inventory maintenance tasks, including inspection, quality surveillance, issue control (for programmed requests), cannibalization and disposition, is delegated to the ISEA assigned cognizance of the prime ordnance item. IMs of NAVSEA material used in ORDALTs engage FMPMIS monitoring and input similar to that described above. Appropriate NAVSEA activities have been designated to input and maintain other ORDALT information in FMPMIS including material identification, applicable hull numbers, and availability dates.

3.2.2.4 MACHALTs and Field Changes

MACHALTs are defined as changes to Hull, Mechanical and Electrical (H,M&E) equipment or systems where the changes are contained within the boundaries of individual systems/equipment and have limited system ramifications. Field changes to electronics equipments are similar and may range in complexity from written instructions specifying simple mechanical or wiring modifications to extensive circuit changes and the removal/substitution of parts. MACHALTs are usually accomplished outside industrial activities, whereas field change implementation requirements will vary depending on the type and class of change proposed. Tracking via FMPMIS is possible after alteration schedules are approved and input by processing activities.

3.2.2.5 Special Program Requirements (SPRs)

SPRs consist of unusual or one-time programs or projects defined and generated by activities (including NAVSEA Program Offices) that require Inventory Control Point (ICP) managed material. Sometimes this material includes 2F, 2J or 2S COG items.

- a. SPR programs are by definition of a nonrepetitive nature and therefore cannot be forecast based on demand data. As an example, submission of SPR requests may be made for:

- (1) One-time training exercises or maneuvers.
- (2) Repair or rebuild programs which are either nonrecurring or which are seldom or irregularly programmed.
- (3) New constructions (ships, building, etc.).
- (4) One-time alterations, modifications, or conversion programs.
- (5) Initial issue of existing items (i.e., outfitting, activations, and changes in authorized allowances).
- (6) Initial requirements for special operational projects.
- (7) Requirements for initial testing.
- (8) Requirements for Government-furnished property.
- (9) Requirements for infrequently planned support operations such as Arctic and Antarctic resupply missions.
- (10) Other special situations of a nonrepetitive nature.

b. NAVSEA Program Offices or other forecasting activities may submit SPR requests in various formats. However, in all cases such requests must identify the purpose of the requirement, NSNs affected, quantities required, necessary support or delivery dates, and any other pertinent data.

c. To complete processing, Program Offices will need to have determined the financial ramifications of projected requirements; that is, whether material will be funded by NAVSEA up front or will be charged (upon requisition) to the appropriate operating budget. If the former, funded requisitions for material, using "A" series Document Identifier (DI) and citing funding, shipping, and marking information will need to be initiated. If the latter, the requirements data will have to be transmitted to the appropriate ICP. In this case, submission of SPRs must be limited to material required not less than 90 calendar days in advance of, or more than 6 years prior to, the support date (the first day of the month which it is anticipated material will be requisitioned for the program). In the event procurement is necessary, delivery for an early support date may not be possible since the procurement lead time for most items will be greater than 90 calendar days. Therefore, submission of SPRs to ICPs should be made as far in advance of the support date as practical.

d. SPRs may be communicated in various formats. When using Military Standard Transaction Reporting and Accounting Procedures (MILSTRAP), SPR request documents are identified by Document Identifiers DYA, DYB, DYL, or DYM as appropriate. Alignment and format are shown below. Program Offices may also transmit requirements by letter to provide additional specific or amplifying information such as reason for demand, identification of equipment being replaced/phased-out, funding arrangements, etc.

3.2.2.6 Special Program Requirement Request Transmission Format

a. General: SPR requests are submitted to ICPs in the following MILSTRAP format:

<u>Columns</u>	<u>Field Legend</u>	<u>Explanation and Instructions</u>
1-3	Document Identifier	Enter Document Identifier DYA, DYB, DYL or DYM as appropriate.
4-6	Routing Identifier (to)	Enter the code identifying the ICP to which the card is forwarded.
7	Media and Status Code	Leave blank.
8-22	Stock Number	Enter the stock number of the item required.
23-24	Unit of Issue	Enter unit of Issue of the item required.
25-29	Quantity	Enter quantity required preceding significant digits with zeros.
30-43	Document Number	Identify the service, the submitting activity, the submission date, and the serial number as follows:
(30)	Service	Enter the appropriate code relating to the submitter.
(31-35)	Submitting Activity	Enter the coded address assigned by the Service to the submitting activity (UIC).
(36)	Year	Enter the last digit of the calendar year.

<u>Columns</u>	<u>Field Legend</u>	<u>Explanation and Instructions</u>
(37-39)	Day	Enter the julian day of the year.
(40-43)	Serial Number	Enter the serial number of the request.
44	Suffix Code	Enter consecutive alpha code A through Z, as necessary,
45-50	Supplementary Address	Enter UIC of the expected "ship to" address; otherwise leave blank.
51-56	Intra-Service Use	When used between Military Services/DNA/DLA leave blank. When used within Navy, enter data prescribed.
57-59	Project Code	Enter project code; or leave blank.
60	Cost Designation	Enter E if consignee location is east of the Mississippi River, Atlantic, Europe, Near East, Africa, Central or South America. Enter W if consignee location other than above.
61	Blank	Leave blank.
62-64	Support Date	The first day of the month which it is anticipated material will be requisitioned for the program. Enter as follows:
(62)	Year	Enter the last digit of calendar year.
(63-64)	Month	Enter the numeric to indicate the month of the year, preceding significant digits with zero (i.e., month of January is expressed as 01).
65-66	Advice Code	Enter Advice code 2B. (Requested item only will suffice. Do not substitute/interchange); otherwise leave blank.

<u>Columns</u>	<u>Field Legend</u>	<u>Explanation and Instructions</u>
67-69	Routing Identifier (from)	Enter the code identifying the activity submitting the request.
70	Purpose Code	Enter the purpose code of item; otherwise leave blank.
71	Supply Condition Code	Enter condition code of item required.
72	Management Code	Leave blank.
73-75	Routing Identifier	In the event the activity submitting the SPR is not the originator of the requirement, indicate in this field the Routing Identification Code of the activity originating the forecast; otherwise leave blank.
76	Generic Submission	For clothing and footwear, enter the alpha G to indicate that this is a generic submission and that the stock number indicated is the first size in the series. When used, it will indicate that the quantity entered in data columns 25-29 represents the total requirement for the generic item. This quantity will be converted by the ICP to individual sizes using the applicable tariff.
77- 80	Blank	Leave blank.

3.3 SUPPLY LEVELS FOR MAJOR SYSTEMS AND EQUIPMENT

3.3.1 General

The Financial Management Policy Manual, NAVSO P-1000, Paragraph 075363 sets forth the requirements, budgeting, and procurement policy for principal items, i.e., end items of major importance which require detailed analysis and examination of all factors affecting their supply and demand. Certain categories of material are, because of their failure modes, long procurement lead times and the degree of support required, amenable to this management criteria. The NAVSO P-1000 Manual also defines budget policy for procurement of major spare systems and equipment (insurance spares) as part of new construction, conversion, or modernization programs. The following general factors will need to be taken into consideration when establishing supply levels for both demand based and insurance items:

a. Total Population of Installed Units: The total number of specific end items installed in ships and craft of the Active Fleet, Naval Reserve Training Fleet, Military Sealift Command, Coast Guard, and at designated training facilities as well as planned installations in ships under construction, conversion, or modernization. When assessing requirements for planned installations, the IM must consider SPM budgeted construction spares. These are systems/equipment procured by the SPM to ensure availability in the event of a catastrophe, failure, or major casualty that threatens a delay in construction, conversion, or modernization programs. Such spares are stored in segregated, controlled, off-line conditions under SPM management.

b. Acquisition and Repair Lead Times: Elapsed time between generation of a requirement and delivery of a new or repaired item. Acquisition and repair lead time includes administrative lead time.

c. Existing Demand Data or Estimated Failure Rates:

d. Development of Maintenance Requirements: As discussed below, maintenance requirements are subject to the following exclusions:

- (1) Propellers and Shafts positioned to support the operating Fleet.
- (2) RADIAC items with Special Material Identification Code (SMIC) RE.
- (3) Boats and Landing Craft with SMIC B1.
- (4) Gas Turbine Engines.
- (5) Reactor Plant Equipment with SMIC X1.
- (6) Changeout programs (less demand based changeout programs).

3.3.1.1 Demand Based

By definition, this category consists of items for which total demands over the previous three years occurred in at least two of those years and averaged one or more per year during that period. It also includes items for which demands are expected to average one per year for the next three years. For these items actual demand data or expected demands (as determined via engineering analyses defining inherent or assumed failure rates) must be used to predict future requirements. In addition, when defining stock levels the IM must evaluate general factors impacting such projections including trend of demand rate, population changes, changes in operational plans, design modifications, production status, outstanding obligations, anticipated attrition, etc. When determining total requirements the following specific "levels" may be addressed:

a. Operating Level: Quantity of material required to sustain operations between successive stock replenishments. This equates to the number of demands anticipated during the item procurement/repair cycle. Various methods may be selected to define this level, including straight or weighted averages, exponential smoothing, or similar techniques. For example:

(1) Average - Compute by adding the three years' demands and dividing by three. The quotient is the average annual demand.

(2) Weighted Average - Multiply demand by weight, using weights of three for the first past year, two for the second past year and one for the third past year. Then divide total weighted demand by total weight to equal weighted average annual demand.

b. Safety level: Quantity of material required to be on hand to permit continuous operations, in the event of interruption of normal replenishment or unpredicted demand fluctuations. Quantity determined should be based on demand frequency, reliability of resupply, mission of supported units/activities, and military essentiality of the item.

c. Acquisition Lead Time (ALT) level: Quantity of material equal to anticipated attrition quantity of stock during ALT for the applicable fiscal year.

3.3.1.2 Insurance

Insurance items are those for which experienced or anticipated demands do not justify demand-based stock levels as described above. The general rule for determining such requirements is as follows:

- a. 1-50 installed units - 1 insurance spare.
- b. 51 or more installed units - 2 insurance spares.

Exceptions to this policy may be appropriate if anticipated failure rates, acquisition/repair lead times or other pertinent data so dictate. IMs should coordinate with equipment engineers to define and justify such levels as necessary.

3.3.2 Policy

It is Navy policy to support mission critical installed systems equipment with shore based spare systems equipment to minimize disruptions resulting from severe casualties, as follows:

a. At a minimum, support of an insurance level will be obtained within the scope of NAVSEAINST 4400.3B (NAVSEA Insurance Items and Construction Spares for Major Systems and Equipment).

b. In those cases where failure mode, population, and degree of support permit a reliable projection of predicted demand, supply levels in excess of insurance levels may be obtained.

The initial spares for a newly introduced system or equipment will be budgeted and procured under the same appropriation as the originating program requirements. Follow-on, additional spares will be budgeted and procured under the applicable Other Procurement, Navy (OPN) or Weapons Procurement, Navy (WPN) appropriation.

The life cycle inventory manager for each system equipment will be responsible for the procurement, asset control, and issue of all material for maintenance, insurance, fleet modernization, new construction, conversion, and modernization programs except SPM managed items procured as construction spares. Construction spares will be transferred to the cognizant life cycle inventory manager upon completion of the shipbuilding contract.

3.3.3 Responsibilities

a. Inventory Manager and Program Office:

(1) Use the following factors in determining insurance and predicted demand levels for existing or newly introduced (first of a kind) systems or equipment:

- (a) Total population (installed and planned program systems equipment).
- (b) Acquisition and repair lead time.
- (c) Existing usage or estimated failure rates.
- (d) SPM budgeted construction spares.

(2) Establish, considering the above factors, an insurance level requirement for non-predicted demand items in accordance with section 3.3.1.2.

(3) Provide for reduction of insurance levels as the likelihood of use due to catastrophic failure diminishes. Likelihood of use can diminish as a result of reduction in the number of supported ships or proven equipment reliability.

(4) Establish, considering the above factors, a predicted demand level if issues have been made in two of the last three years or if at least one failure per year is predicted to occur in the next three years.

(5) Include determined insurance demand level requirements in the appropriate OPN or WPN budget, or submit insurance requirements to the cognizant originating organization for equipment/systems newly introduced through the new construction, conversion, or modernization programs for inclusion in the appropriate budget.

(6) Request SPM release of a construction spare if replacement is for a critical requirement on an Active Fleet ship and all efforts to repair or replace with the next lower assembly have been attempted without success.

(7) Budget and procure a replacement unit or repair the removed unit for any issue made in accordance with paragraph a. (6) above. The requirement will be included in the applicable OPN or WPN budget for procurement or in the Operation and Maintenance, Navy (O&MN) budget for repair.

(8) Submit requirements for insurance level quantities greater than two as a specific line item in the appropriate OPN or WPN budget. Approval of budget quantities will constitute CNO approval to procure and maintain these levels.

b. Technical Manager will provide to the assigned IM and Program Office the projected failure rate for systems/equipment newly introduced into the fleet and will review proposed Contractor Furnished Equipment (CFE) lists and make recommendations for required insurance levels.

c. New Construction Ship Program Manager (SPM):

(1) Determine, with the Life Cycle Manager, if construction insurance level spares are required for NAVSEA assigned equipment or systems newly introduced into the fleet. The criteria will be as prescribed in Section 3.3.1 above.

(2) Include construction insurance level spare requirements in the applicable ship budget.

(3) Direct procurement action to be initiated by the cognizant NAVSEA Participating Manager for GFE or the appropriate private shipyard for CFE.

(4) Direct the private shipyard procuring CFE spares to transfer assets to the supply system at the conclusion of the applicable ship construction effort.

(5) Advise the applicable IM of the impact when a SPM controlled spare must be issued to meet an Fleet requirement.

3.4 LEVELS DETERMINATION

The IM of NAVSEA material will compute final program and maintenance requirement levels through comparison of supply (assets) and demand (requirements) as previously discussed. The following formal procedures are used to support this process.

3.4.1 Stratification (STRAT)

Stratification involves the analysis of material assets, both in stock and on-order/under repair, to determine whether they are correctly allocated to known requirements. This effort requires a numeric and financial breakdown of inventory into specific categories. Through the stratification process, asset shortages and excesses may be identified by item, quantity, and dollar value. Specifically, stratification is comprised of the following general phases.

a. On Hand/Due in Asset Identification: Define total dollar value of cognizant budget line items for three consecutive Fiscal Years (FYs) starting with the reporting period. IMs will be provided applicable inventory value breakdowns of material by stock number and Local Routing Code (LRC) to compile this data.

b. Asset Allocation:

(1) Categorize material under review as to purpose held/procured (i.e., Approved Acquisition Objective (program and maintenance stocks), War Reserve Stock, Contingency Retention Stock, Potential Security Assistance Stock).

(2) Sum dollar values in each category.

STRAT is a corollary to the Supply Demand Review as discussed below. The intention is to determine the purpose for which existing assets are held, track associated dollar values, and identify potential imbalances. This analysis is done, albeit informally, each time any sort of supply review is undertaken. However formal STRAT reviews are required on an annual basis.

3.4.2 Supply Demand Review (SDR)

The objective of a formal SDR is to systematically collect and compare all pertinent data regarding both requirements for and the inventory posture of an item. This can form the basis for resolution of supply adjustment actions including procurement, refit, surplus material disposals, and inventory management actions allied thereto. In theory SDRs are performed each time there is a change to either assets or requirements for an item, with the depth or degree of intensity of the review dictated by the significance of the change. As a practical matter, while SDRs are routinely conducted at NAVICP for 7 COG material, the high value, low volume character of NAVSEA 2 COG material leads to less frequent use of SDRs by IMs of NAVSEA material.

When utilized, SDR computations can help to determine the specific adjustment actions necessary to maintain desired stock levels for the current year, budget year, and out-years. As such, SDRs can serve as a budgeting tool for future requirements. IMs should possess knowledge of SDR theory and tailor any formal SDR iterations as the magnitude of asset/requirement variations so dictate. NAVICP Instruction 4400.62 (series), "Consumable and Depot Level Repairable (DLR) Supply Demand Review," refers.

3.4.2.1 SDR Process

The SDR process generally consists of the following phases. In each phase, data should be compiled and/or projected to the extent required to address the impact of all anticipated stock status changes.

a. Population Data: Define total population (active, reserve, Military Assistance Program) of installed units in specified review years.

b. Direct Funded Shipbuilding and Conversion, Navy (SCN) Material Analysis:

(1) Define known shipbuilding, conversion, or other SCN requirements in specified FYs.

(2) Determine on hand or due-in material funded and specifically earmarked for above programs.

(3) Identify net stock position for SCN material and define and report excess/deficit levels as required.

c. Non-SCN Material Analysis:

(1) Define known alterations, change-outs, and other program requirements.

(2) Identify requisite operating levels for demand-based and insurance items.

(3) Determine on-hand and due-in material available to satisfy above demands.

d. Ready For Issue (RFI) Supply Analysis:

(1) Compare RFI assets to expected issues.

(2) Calculate RFI balances.

(3) Allocate RFI balances to insurance or other operating levels required for maintenance or contingency purposes.

(4) Identify RFI excess(es) or deficit(s).

e. Not Ready For Issue (NRFI) Supply Analysis:

(1) Calculate NRFI on-hand or expected to be recovered.

(2) Adjust NRFI total(s) by expected attrition rate.

(3) Define net on-hand NRFI.

f. Supply Adjustment:

(1) For RFI deficit -- Based on availability of NRFI, determine repair or procurement actions to satisfy shortfalls in given FYs. Identify specific quantities and execution time frames given Production or Repair lead times.

(2) For RFI excess -- Allocate quantities.

3.5 NEW ITEM IDENTIFICATION AND CATALOGING

During the process of requirements determination, IMs may be alerted to new (i.e., non-stock numbered) items to be placed under their cognizance. Such notification may result from discussions with acquisition managers or system/equipment engineers in advance of anticipated procurements. Cataloging is the term for the formal item identification process. It consists of the specific methods by which a stock number is obtained for an item of supply, along with the collection, compilation, and publication of related management data that further identifies the item. In general, cataloging will be initiated for items of supply which meet any of the following criteria:

a. Are selected for NAVSEA management, procurement, and stockage.

- b. Are to be stocked in the supply system.
- c. Have existing or projected demand data that indicates to the IM there will be recurring demand for the item.
- d. Require identification for SHIPALTs.

Specifically, for NAVSEA managed material, cataloging may be required to obtain a NSN for material to be managed as a depot repairable and to require system support regardless of source (i.e., GFE, CFE, rollback). Cataloging may also be required to obtain a Navy Item Control Number (NICN) for controlling material moving through the DoD supply or transportation system (i.e., equipment alteration kits; parts kits; or one-time, end-item installations).

To initiate cataloging actions, IMs of NAVSEA material must prepare an Item Identification Worksheet and submit the completed worksheet to NAVSEA 04L12, who, upon review and approval, will, in turn, forward it to the NAVSEA cataloging technician at NAVICP. Worksheet preparation will require the IM to specifically request either a temporary NICN (T-NICN) for those items designated to receive NSNs or a permanent NICN (P-NICN) for items being documented for material control purposes only. Item Identification Worksheet instructions are contained in Appendix E. IMs may need to consult with engineering personnel to determine accurate data entries. Worksheet data elements will be input to the NAVICP Master Data File by cataloging personnel to establish catalog management data for NICNs, both permanently assigned and temporarily assigned pending receipt of a NSN.